

### **ABSTRACT**

A process for operating a compression ignition internal combustion engine in combination with a catalytic partial oxidation reformer and, optionally, an exhaust gas aftertreater, wherein:

- (a) a mixture of a first fuel and air, wherein the first fuel comprises Fischer-Tropsch derived fuel, is introduced in the combustion chamber of the engine;
- (b) exhaust gas is discharged from the engine and optionally partly recirculated to the combustion chamber of the engine;
- (c) a second fuel and oxygen and/or steam are supplied to the catalytic partial oxidation reformer to produce synthesis gas, wherein the second fuel comprises Fischer-Tropsch derived fuel;
- (d) at least part of the synthesis gas is supplied to:
  - (i) the exhaust gas aftertreater;
  - (ii) the combustion chamber of the engine; or to both.